



PO No	Supplier	Line Item No	Ref No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	Past Due
PO038986	MES002-VC		2	1 Net 30	M4140NR0 625	4140 Steel Round Bar 0.625" receive ft				8	2/20/2018	8	S044296	Stock	2/21/2018	\$ 5.70 / ft	0		
			3		M4140NR0 875	4140 Steel Round Bar 0.875" receive ft				20		20	S044297	Stock	2/21/2018	\$ 4.70 / ft	0		
			4		M4140OD61.000x1.000	4140 Steel Bar 1.000 X 1.000 receive ft				6		6	S044298	Stock	2/21/2018	\$ 27.00 / ft	0		
			5		MT 4140-B-120X6.000	AISI 4140 Round Bar : Material: AISI 4140 STEEL BAR AS PER ASTM A29, AMS 6349, AMS 6382, AMS 6529, MIL-S-5626 MIN. ROCKWELL C = 28 RC MAX. ROCKWELL C = 32 RC NOTE: cut material in 12" length x 10 pcs					10		10	S044299	Stock	2/21/2018	\$ 68.60 / ft	0	
Total:												44		44					

Plex 2/21/2018 2:19 PM Dart.Dubois.Pascal

METAUX SOLUTIONS INC  
 2625 BOUL JACQUES CARTIER EST  
 LONGUEUIL, QUEBEC  
 J4N 1L7      Tel.: 450 641-3330

Shipping Order

20/02/2018

Order : 132578  
 Reference : 38986  
 Ship : PICK UP / PICK UP

Customer: 6323336

DART AEROSPACE LTD  
 1270, ABERDEEN STREET  
 HAWKESBURY, ONTARIO  
 K6A 1K7

Ship To

Same

Tel.: 1 613 632-3336

Item No.	Description	Qty	Qty. Delivered	B/O Qty
SF14124HR	***** FACTURER E-MAIL ***** SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N 304 STAIN FLA .25" X .500" HR 2 X 12.75' 15 X 13.08' 2 X 13.33' 6 X 13' HT;67736108			
MR5841H	4140 ROND .625" H.T 1 X 96" ***** HT;75066727	8	8	0
MR7841H	4140 HT ROU .875" DIA 1 x 21.25' HT;75065013	21.25	21.25	0
MSQ141CD	4140 SQU 1.000 CD 1 X 72" HT;SA894555	6	6	0
MP11441H	4140 HTSR PLATE 1.250" THICK 10 X 6" X 12" HT;pm94492	280	280	0
SHIP JOURNEY COLLECT JP				

56 56

Shipping : \_\_\_\_\_  
 Package No : \_\_\_\_\_  
 Merchandise Received : \_\_\_\_\_

Ref. : \_\_\_\_\_



TRANSPORT EXPRESS MINIMAX TRANSPORTATION INC.  
P.O. BOX 92, CORNWALL, ONTARIO K6H 5R9  
1-800-465-6657

DELIVERY RECEIPT  
REÇU DE LIVRAISON

DATE 02-20-2018	TRAILER - REMORQUE 758	ORIG. COR	DEST. COR	NIR R-519336	CVOR 3104-372-613	PRO. 1624128
SHIPPER / EXPÉDITEUR  METAUX SOLUTIONS 2625 BOUL JACQUES CARTIER E LONGUEUIL, QC J4M 1L7 (450) 641-3330			CONSIGNEE / CONSIGNATAIRE  DART AEROSPACE 1270 ABERDEEN ST HAWKESBURY, ON K1A 1K7 (613) 632-5200			CODE 0
						GST / TPS: R 126922954 QST / TVQ: 1010859073
JCT	ORIG. CARRIER / REÇU DE PRO			JCT	TRANSFER TO / TRANSFERT À	
PCS	TYPE	DESCRIPTION			WEIGHT / POIDS	
3	SKID	D STC HELICOPTER PARTS 1 CRATE @ 141X7X6, 1 CRATE @ 159X7X6, @ 32X15X8			812L	B/L PB20143589
					1 SKID	P.O.
					TPB	
TOTAL 3	DECLARED VALUE / VALEUR DÉCLARÉE 0	DRIVER / CHAUFFEUR		DATE	TOTAL 812L	APPT INFO. 02/21/18

BILL TO:  
JOURNEY FREIGHT  
18100 TRANSCANADA  
KIRKLAND, QC



RECEIVED \_\_\_\_\_  
BY / PAR \_\_\_\_\_  
ANY LOSS OR DAMAGE MUST BE NOTED ON PROBILL AT TIME OF DELIVERY.  
TOUTES PERTES OU DOMMAGES DOIVENT ÊTRE SIGNALÉE AU MOMENT DE LA LIVRAISON.

REC. \_\_\_\_\_ PCS DATE \_\_\_\_\_

**TOTAL ►**

CPC	RETURN
C.O.D. C.R.	
C.O.D. FEE FRAIS DE C.R.	

15814 7

METAUX SOLUTIONS INC  
2625 BOUL JACQUES CARTIER EST  
LONGUEUIL, QUEBEC  
J4N 1L7

## Shipping Order

20/02/2018

*Order* : 132578  
*Reference* : 38986  
*Ship* : PICK UP / PICK UP

*Customer:* 6323336

DART AEROSPACE LTD  
1270, ABERDEEN STREET  
HAWKESBURY, ONTARIO  
K6A 1K7

*Ship To*

Same

*Tel.:* 1 613 632-3336

Item No.	Description	Qty	Qty. Delivered	B/O Qty
SF14124HR	***** FACTURER E-MAIL ***** SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N 304 STAIN FLA .25" X .500" HR 2 X 12.75' 15 X 13.08' 2 X 13.33' 6 X 13' HT;67736108			
MR5841H	4140 ROND .625" H.T 1 X 96" ***** HT;75066727	8	8	0
MR7841H	4140 HT ROU .875" DIA 1 x 21.25' HT;75065013	21.25	21.25	0
MSQ141CD	4140 SQU 1.000 CD 1 X 72" HT;SA894555	6	6	0
MP11441H	4140 HTSR PLATE 1.250" THICK 10 X 6" X 12" HT;pm94492	280	280	0

SHIP JOURNEY COLLECT  
JP

1624128

*Shipping* : \_\_\_\_\_  
*Package No* : \_\_\_\_\_  
*Merchandise Received* :

Ref. : \_\_\_\_\_

15krd

METAUX SOLUTIONS INC  
2625 BOUL JACQUES CARTIER EST  
LONGUEUIL, QUEBEC  
J4N 1L7                    **Tel.** : 450 641-3330

Shipping Order

20/02/2018

**Order** : 132669  
**Reference** : 39020  
**Ship** : PICK UP / PICK UP

**Customer:** 6323336

DART AEROSPACE LTD  
1270, ABERDEEN STREET  
HAWKESBURY, ONTARIO  
K6A 1K7

**Ship To**

Same

**Tel.:** 1 613 632-3336

<b>Item No.</b>	<b>Description</b>	<b>Qty</b>	<b>Qty. Delive</b>	<b>B/O Qty</b>
TP12A2	***** FACTURER E-MAIL ***** SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N A-2 PLATE TFA 1/2" THICK 9 X 1.25" -0+.+ X 140" R/L HT;PM83806	246	<u>246</u>	<u>0</u>

ASAS ASAP ASAP

SHIP JOURNEY COLLECT

**Shipping** : \_\_\_\_\_  
**Package No** : \_\_\_\_\_  
**Merchandise Received:** \_\_\_\_\_

**Ref.** : \_\_\_\_\_

METAUX SOLUTIONS INC  
 2625 BOUL JACQUES CARTIER EST  
 LONGUEUIL, QUEBEC  
 J4N 1L7      **Tel.:** 450 641-3330

### Shipping Order

20/02/2018

**Order** : 132578  
**Reference** : 38986  
**Ship** : PICK UP / PICK UP

**Customer:** 6323336

DART AEROSPACE LTD  
 1270, ABERDEEN STREET  
 HAWKESBURY, ONTARIO  
 K6A 1K7

### Ship To

Same

**Tel.:** 1 613 632-3336

<b>Item No.</b>	<b>Description</b>	<b>Qty</b>	<b>Qty. Delive</b>	<b>B/O Qty</b>
SF14124HR	***** FACTURER E-MAIL ***** SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N 304 STAIN FLA .25" X .500" HR 2 X 12.75' 15 X 13.08' 2 X 13.33' 6 X 13' HT;67736108			
MR5841H	4140 ROND .625" H.T 1 X 96" ***** HT;75066727	8	8	0
MR7841H	4140 HT ROU .875" DIA 1 x 21.25' HT;75065013	21.25	21.25	0
MSQ141CD	4140 SQU 1.000 CD 1 X 72" HT;SA894555	6	6	0
MP11441H	4140 HTSR PLATE 1.250" THICK 10 X 6" X 12" HT;pm94492	280	280	0

SHIP JOURNEY COLLECT

JP

**Shipping** : \_\_\_\_\_  
**Package No** : \_\_\_\_\_  
**Merchandise Received:** \_\_\_\_\_

**Ref.** : \_\_\_\_\_  
 \_\_\_\_\_

METAUX SOLUTIONS INC  
2625 BOUL JACQUES CARTIER EST  
LONGUEUIL, QUEBEC  
J4N 1L7                    *Tel.* : 450 641-3330

Shipping Order                    20/02/2018

*Order*                    : 132578  
*Reference*                    : 38986  
*Ship*                    : PICK UP / PICK UP

*Customer:* 6323336

*Ship To*

DART AEROSPACE LTD  
1270, ABERDEEN STREET  
HAWKESBURY, ONTARIO  
K6A 1K7

Same

*Tel.:* 1 613 632-3336

<i>Item No.</i>	<i>Description</i>	<i>Qty</i>	<i>Qty. Delivered</i>	<i>B/O Qty</i>
SF14124HR	***** FACTURER E-MAIL ***** SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N 304 STAIN FLA .25" X .500" HR 2 X 12.75' 15 X 13.08' 2 X 13.33' 6 X 13' HT;67736108			
MR5841H	4140 ROND .625" H.T 1 X 96" ***** HT;75066727	8	8	0
MR7841H	4140 HT ROU .875" DIA 1 x 21.25' HT;75065013	21.25	21.25	0
MSQ141CD	4140 SQU 1.000 CD 1 X 72" HT;SA894555	6	6	0
MP11441H	4140 HTSR PLATE 1.250" THICK 10 X 6" X 12" HT;pm94492	280	280	0

SHIP JOURNEY COLLECT

JP

*Shipping* : \_\_\_\_\_  
*Package No* : \_\_\_\_\_  
*Merchandise Received* : \_\_\_\_\_

*Ref.* : \_\_\_\_\_

## Chantal Lavoie

**From:** Jérôme Primeau <j.primeau@metauxsolutions.com>  
**Sent:** Tuesday, February 06, 2018 9:03 AM  
**To:** Chantal Lavoie  
**Subject:** RE: quote

Voir plus bas

5/7 jours

**De :** Chantal Lavoie [mailto:clavoie@dartaero.com]  
**Envoyé :** Monday, February 5, 2018 10:58 AM  
**À :** Jérôme Primeau <j.primeau@metauxsolutions.com>  
**Objet :** quote

Good morning Jerome,  
Please advise price and delivery on mat'l.

~~303 bar 1" x 3" x 24 ft 74.90\$/ft~~  
~~303 bar 1" x 1" x 24 ft 24.25\$/ft~~

~~304 bar 1" x 2.5" x 12 ft 36.15\$/ft~~  
~~304 bar 2.5" x 2.5" x 12 ft 86.95\$/ft~~  
~~304 bar 0.625" x 4" x 4 ft 225.00\$/pc~~ ~~54.25~~

~~4140 H round bar 1.375" x 8 ft 20' only 9.75\$/ft~~

~~4140n round bar 0.625" x 8 ft ht only 5.70\$/ft~~  
~~4140n round bar 0.875" x 8 ft ht and 20' only 4.70\$/ft~~

~~303 round bar 0.250" x 12 ft 304 only 9.5\$/ft~~

~~1018 round bar 1" x 12 ft 4.50\$/ft~~

~~4140 cd bar 1" x 1" x 6 ft 27.00\$/ft~~ ~~162.00~~

~~4140 qt round bar 1" x 8 ft ht only 6.25\$/ft~~  
~~4140 qt round bar 0.625" x 8 ft ht only 5.70\$/ft~~

~~4140 bar 1" x 6.250" x 4 ft 285.20\$/pc~~ ~~71.30~~

~~A513 round tubing 0.750" x 0.085" x 20 ft offer 095" wall 3.25\$/ft~~

~~4140 bar cut to size 6" x 12" x 1.250" thick x 3 pcs 68.60\$/ea~~

Bronze round bar 2.250" x 2 ft (630 spec's) will get back for both  
Bronze 2.5" x 2 ft (630 spec's)

Thanks

METAUX SOLUTIONS INC  
2625 BOUL JACQUES CARTIER EST  
LONGUEUIL, QUEBEC  
J4N 1L7 *Tel. : 450 641-3330*

*Sales Rep.* : JEROME PRIMEAU  
*Reference* : chantal  
*Expiration Date* : 06/05/2018

25889

*Customer:* 6323336

DART AEROSPACE LTD  
1270, ABERDEEN STREET  
HAWKESBURY, ONTARIO  
K6A 1K7

*Ship To :*

Same

**Tel.:** 1 613 632-3336

Item No.	Description	Qty	Price	Total	Tx
***** FACTURER E-MAIL *****					
	SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N				
MP141H	4140 HTSR PLATE 1.00" THICK 1 x 6.25" x 72"	138	2.45	338.10	A
MP5841H	4140 HTSR TFA PLATE .625" P.M. 1 x 3" x 72"	44	3.10	136.40	A
MR384130	4130 .375 DIAM 1 X 12' 5/7 JOURS	12	15.10	181.20	A
SR144	304 ROU .250 DIA 1 X 12' PAS DE 303	12	1.80	21.60	A
TR13401	O-1 TFA TO FIN 1.750 RD 1 X 72"	50	2.85	142.50	A
TR101	O-1 TFA TO FIN 1 RD 1 X 725"	18	2.85	51.30	A
MR51641H	4140HT ROU .312 DIA. REGRET				
MR3841H	4140 HTSR .375" DIA 1 X 12'	12	5.85	70.20	A
MR11441H	4140 HTSR ROU 1.250 DIA 1 X 12'	12	8.65	103.80	A
MR31241H	4140 HTSR ROU 3.500 DIA 1 X 72"	6	68.35	410.10	A

3/4 JOURS

<i>A) Regist :</i>	<i>Subtotal</i>	1 455.20
	<i>HST :</i>	189.18
	<i>Total :</i>	1 644.38



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

**PURCHASE ORDER  
PO038986**

**Supplier:** MES002-VC  
Metaux Solutions  
2625 boul Jacques-Cartier Est  
Longueuil  
QC  
J4N 1L7 Canada  
Phone: 800 558 8858  
Fax: 514 633 8044

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**PO No:** PO038986  
**PO Date:** 2/8/18  
**Due Date:** 2/20/18  
**Purchase Order Revision:**  
**Revision Date:**  
**Ship-To Contact:** Lacelle, Linda Phone: llacelle@dartaero.com  
**Via:** Ground  
**Pymt Terms:** Net 30  
**Freight Terms:**  
**Special Comments:**

**E-MAILED**

**FEB 08 2018**

**Items**

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	M304B0.250x0.500		304 Bar .250 X .500 : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	2/20/18	300 pcs	0 pcs	300 pcs	\$4.25/pcs	\$1,275.00
2	M4140NR0.625		4140 Steel Round Bar 0.625" receive ft	Firmed	2/20/18	8 ft	8 ft	0 ft	\$5.70/ft	\$45.60
3	M4140NR0.875		4140 Steel Round Bar 0.875" receive ft	Firmed	2/20/18	20 ft	20 ft	0 ft	\$4.70/ft	\$94.00
4	M4140CDB1.000x1.000		4140 Steel Bar 1.000 X 1.000 receive ft	Firmed	2/20/18	6 ft	6 ft	0 ft	\$27.00/ft	\$162.00
5	MT-4140-B-1.250X6.000		AISI 4140 Round Bar : Material: AISI 4140 STEEL BAR AS PER ASTM A29, AMS 6349, AMS 6382, AMS 6529, MIL-S-5626 MIN. ROCKWELL C = 28 RC MAX. ROCKWELL C = 32 RC NOTE: cut material in 12" length x 10 pcs	Firmed	2/20/18	10 ft	10 ft	0 ft	\$68.60/ft	\$686.00

**Grand Total:** \$2,262.60

**Order Notes**

**Order Notes**

**Procurement Quality Clauses**

- A005 right of entry
- A012 chemical and physical test report
- A016 personnel qualification
- A017 raw material identification (as applicable)
- A026 certification of material conformance
- A041 quality management system
- A042 part notification by supplier
- A043 retention of quality documents
  
- A048 counterfeit parts avoidance, detection, mitigation and disposition program
  
- A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Plex 2/8/18 10:37 AM *dart.lacelle.linda*

## PURCHASE ORDER



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

**PURCHASE ORDER  
PO038986**

<b>Supplier:</b>	MES002-VC Metaux Solutions 2625 boul Jacques-Cartier Est Longueuil QC J4N 1L7 Canada Phone: 800 558 8858 Fax: 514 633 8044	<b>PO No:</b>	PO038986
		<b>PO Date:</b>	2/8/18
		<b>Due Date:</b>	2/20/18
		<b>Purchase Order Revision:</b>	
		<b>Revision Date:</b>	
		<b>Ship-To Contact:</b>	Lacelle, Linda Phone: lacelle@dartaero.com
<b>Ship To:</b>	1270 Aberdeen Street Hawkesbury ON K6A 1K7 Canada Phone: 613-632-5200	<b>Via:</b>	Ground
		<b>Pymt Terms:</b>	Net 30
		<b>Freight Terms:</b>	
		<b>Special Comments:</b>	

Line Item	Part	Supplier Part No	Description	Items						
				Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	M304B0.250x0.500		304 Bar .250 X .500 : MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE AS PER ASTM A276 OR ASTM A240 NOTE: AISI/ 303 NOT ACCEPTABLE receive ft	Firmed	2/20/18	300 pcs	0 pcs	300 pcs	\$4.25/pcs	\$1,275.00
2	M4140NR0.625		4140 Steel Round Bar 0.625" receive ft	Firmed	2/20/18	8 ft	0 ft	8 ft	\$5.70/ft	\$45.60
3	M4140NR0.875		4140 Steel Round Bar 0.875" receive ft	Firmed	2/20/18	20 ft	0 ft	20 ft	\$4.70/ft	\$94.00
4	M4140CDB1.000x1.000		4140 Steel Bar 1.000 X 1.000 receive ft	Firmed	2/20/18	6 ft	0 ft	6 ft	\$27.00/ft	\$162.00
5	MT-4140-B- 1.250X6.000		AISI 4140 Round Bar : Material: AISI 4140 STEEL BAR AS PER ASTM A29, AMS 6349, AMS 6382, AMS 6529, MIL-S-5626 MIN. ROCKWELL C = 28 RC MAX. ROCKWELL C = 32 RC	Firmed	2/20/18	10 ft	0 ft	10 ft	\$68.60/ft	\$686.00

NOTE: cut material in  
12" length x 10 pcs

Grand Total: \$2,262.60

Order Notes

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-414C-B-1.250x6.000  
 DATE: FEB 21 2018

PO / BATCH NO: 038986/5044299

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 10  
 QUANTITY INSPECTED: 10  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.250  
 THICKNESS RECEIVED: 1.250  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> <input type="checkbox"/> (N)	
CORRECT FINISH	<input checked="" type="checkbox"/> <input type="checkbox"/> (Y) N	
CORROSION	<input checked="" type="checkbox"/> <input type="checkbox"/> (Y) N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> <input type="checkbox"/> (Y) N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> <input type="checkbox"/> (Y) N	<u>ASTM-A-829</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> <input type="checkbox"/> (Y) N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> <input type="checkbox"/> (Y) N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> <input type="checkbox"/> (Y) N	<u>Heat # 1094492</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> <input type="checkbox"/> (Y) N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> <input type="checkbox"/> (Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> <input type="checkbox"/> (Y) N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> <input type="checkbox"/> (Y) N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	DAS	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>11</u>		SIGNED OFF BY: _____
DATE: <u>9-88 FEB 21 2018</u>		DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18/2/13	VM	ML

PURCHASE MATERIAL: AISI 4140 / 4142 STEEL SHEET OR PLATE

MINIMUM ROCKWELL C = 28 RC

MAXIMUM ROCKWELL C = 32 RC

SPECIFICATION: *ASTM A829, AMS 6395*

PART NUMBER:

MT-4140-S-[T].[TTT]x[W].[WWW]  
WHERE "T" = THICKNESS IN INCHES  
WHERE "W.[WWW]" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063  
EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500x3.500

1	2	3	4	5	6	7	8
A	B	C	D	C	B	A	
<b>DART</b> <b>AEROSPACE</b> Mississauga, Ontario, Canada							
<b>AISI 4140 / 4142 STEEL SHEET OR PLATE</b>							
<b>MT-4140-S</b>							
<b>REV. A</b>							
<b>INITIALS AND DATE</b>							
<small>DESIGNED BY: VM 2/1/2018 DRAWN BY: VM 2/1/2018 CHIEFED BY: VM 2/1/2018 MFG REVIEW BY: ML 2/1/2018 APPROVED BY: COP 2/1/2018</small>							
<small>NOTES: 1) All dimensions are in inches 2) UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES 3) UNLESS OTHERWISE SPECIFIED, ANGLES ARE IN DEGREES 4) FRACTIONS: <math>\frac{1}{8}</math> INCHES 5) ANGLES: <math>\pm 30^\circ</math> 6) SURFACE ROUGHNESS</small>							
<small>SCALE: 1:1 SHEET OF 1</small>							
<small>PRINTED ON 02/01/2018 BY DART AEROSPACE LTD DRAFT COPY. NOT FOR FABRICATION. USE COMMERCIAL DRAWINGS OR SPECIFICATIONS FOR THAT PURPOSE. PRINT DATE 02/01/2018</small>							

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M414CCDB1.000x1.000  
 DATE: FEB 21 2018

PO / BATCH NO.: 038986/SC44298

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 6  
 QUANTITY INSPECTED: 6  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000  
 THICKNESS RECEIVED: 1.000  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORROSION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="radio"/> N <input type="radio"/>	<i>Astm A29 as per A108</i>
CORRECT THICKNESS	Y <input checked="" type="radio"/> N <input type="radio"/>	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="radio"/> N <input type="radio"/>	<i>Heat # 54874555</i>
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N <input type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u>	SIGNED OFF BY: _____
DATE: <u>9-89</u> <u>FEB 21 2018</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M5414C01 RC.875  
 DATE: FEB 21 2018

PO / BATCH NO.: 038986/6044287

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 20  
 QUANTITY INSPECTED: 20  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: C.875  
 THICKNESS RECEIVED: C.875  
 SHEET SIZE ORDERED: 11A  
 SHEET SIZE RECEIVED: 11A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORROSION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="radio"/> N <input type="radio"/>	<i>Action A29</i>
CORRECT THICKNESS	Y <input checked="" type="radio"/> N <input type="radio"/>	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="radio"/> N <input type="radio"/>	<i>Heat # 25065013</i>
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N <input type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 10 INSPECTION	DAS	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>11</u> <small>9-89</small>		SIGNED OFF BY: _____
DATE: <u>FEB 21 2018</u>		DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

## SPECIFICATION CONTROL DRAWING

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	17-790	17.12.13	VM	ML
B	MIN & MAX RE CHANGED	18-523	18.01.24	VM	ML
C	ADD AISI 4142	18-544	18.02.14	ML	ML

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL BAR

MINIMUM ROCKWELL C = 28 Rc

MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION:

ASTM A29, AMS 6349, AMS 6382, AMS 6529, MIL-S-5626, MIL-S-24093

PART NUMBER:

MT-4140-B-T.1111XW.WWW

WHERE "T.1111" = THICKNESS IN INCHES

WHERE "W.WWW" = WIDTH IN INCHES

EX. 4.0" x 6.0" BAR = MT-4140-B-4.00x6.00

A	B	C	D
8	7	6	5
6	5	4	3
5	4	3	2
4	3	2	1
3	2	1	
2	1		
1			

**DART**  
Aerospace

Hamilton, Ontario, Canada

**TITLE**  
AISI 4140 / 4142 STEEL BAR

**PART NO.**  
MT-4140-B

**TOOL NO.**

NUMBER OF DRAWINGS	DRAWINGS ARE IN INCHES	REV.
1	INCHES	C

**NOTES**

ALL DIMENSIONS ARE IN INCHES.  
UNLESS OTHERWISE SPECIFIED.  
UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.  
DRAWINGS ARE IN INCHES.  
DESIGNING & DRAWING: VM 12/13/2017  
DRAWN BY: ML 02/14/2018  
CHECKED BY: VM 02/14/2018  
MATERIALS BY: VM 02/14/2018  
APPROVED BY: ML 02/14/2018  
COMPONENT: © 2017 BY DART AEROSPACE LTD  
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MADE AVAILABLE TO ANY OTHER PERSON, OR USED FOR ANY OTHER PURPOSE, WITHOUT DART AEROSPACE LTD'S  
WRITTEN CONSENT.

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M1440K0-625  
 DATE: FEB 21 2018

PO / BATCH NO. 038986/5044286

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 8  
 QUANTITY INSPECTED: 8  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.625  
 THICKNESS RECEIVED: 0.625  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORROSION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="radio"/> N <input type="radio"/>	A36n A39 after A108
CORRECT THICKNESS	Y <input checked="" type="radio"/> N <input type="radio"/>	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="radio"/> N <input type="radio"/>	Heat # HT 75066727
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N <input type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>11</u>	<u>9-89</u>	SIGNED OFF BY: _____
DATE: <u>FEB 21 2018</u>		DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 4140 / 4142 STEEL BAR  
 MINIMUM ROCKWELL C = 28 Rc  
 MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION:

MT-4140-B-T-TTT X [W,WWW]  
 WHERE "T-TTT" = THICKNESS IN INCHES  
 WHERE "W,WWW" = WIDTH IN INCHES

EX. 4.0" x 6.0" BAR = MT-4140-B-4.000x6.000

PART NUMBER:

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	17-780	17/12/13	VM	ML
B	MIN & MAX RE-CHANGED	18-523	18/01/24	VM	ML
C	ADD AISI 4142	18-544	18/02/14	ML	ML

8  
7  
6  
5  
4  
3  
2  
1

D C B A

DART		AEROSPACE	
Waterloo, Ontario, Canada			
TITLE: AISI 4140 / 4142 STEEL BAR			
PART NO.	MT-4140-B	REV	C
TOOL NO.			
UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES. 3.000 INCHES = 76.200MM. 0.0005" = 0.012MM DRAWINGS ARE FOR INFORMATION ONLY. DO NOT USE FOR MANUFACTURE.			
INITIALS AND DATE DRAWN BY:	VM 12/1/2017		
DESIGNED BY:	ML 02/11/2018		
DRAWN BY:	VM 02/11/2018		
CHECKED BY:	VM 02/11/2018		
INFO REVIEWED BY:	DO 02/11/2018		
APPROVED BY:	ML 02/11/2018		
SCALE: NTS			
SHEET 1 OF 1			
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8  
7  
6  
5  
4  
3  
2  
1



**Métaux Solutions**

L'alliage de qualité et de rapidité !

2625, Boul. Jacques-Cartier Est  
Longueuil (Québec) J4N 1L7

[info@metauxsolutions.com](mailto:info@metauxsolutions.com)  
T 450 641-3330  
Ext : 1-800-967-2003

**CERTIFICAT D'ANALYSE**

DART AEROSPACE LTD  
1270, ABERDEEN STREET  
HAWKESBURY, ONTARIO  
K6A 1K7

20 févr. 18

**Product Description**

MSP12500  
1-1/4 X 34 1/4" X 145 3/4"

Shipped Pos

1.00

Back Ordered

0.00

PO LINE

PLATE 4140/42 PREH.

ASTM A-829

DFARS Compliant

PLATE# : 424249B

Country of Origin SLOVENIA

	C -	0.4200	Mn -	0.8030	P -	0.0070	S -	0.0005	Si -	BHN	310.00	PO LINE
	Cr -	0.9900	Mo -	0.1600	Cu -	0.2470	V -	0.0380		0.2000	Ni -	0.2100

PM HEAT# : 94492

ITEM 5: 10 X 6" X 12"

COMMANDÉ : 132678

REF : 38986

Métaux Solutions inc. certifie que les analyses sur ce document sont exactes et que le matériel rencontre les spécifications énumérées.

Préparé par

# CERTIFICATE OF TEST

## CERTIFICAT D'ESAI

Page 01 of 02

CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT

Certification Date  
18-AUG-2017

43024-J

Invoice Number  
T369355

PART NUMBER/NUMÉRO DE PIÈCE

507340

SOLD TO:  
VENDU À: METAUX SOLUTIONS INC.      SHIP TO:  
EXPÉDIÉ À:  
2625 BOUL JACQUES CARTIER EST  
LONGUEUIL QC J4N 1L7

METAUX SOLUTIONS (RIVE-SUD)  
2625 BOUL JACQUES CARTIER EST  
LONGUEUIL QC J4N 1

Description: 4140/4142 CF ANN BAR  
1 SO X 12' R/L  
HEAT: SA894555

ITEM: 507340

ASTM A108  
Line Total: 84 LB

Specifications:  
ASTM A108 13

ASTM A331\*

EN 10204 3.1

### CHEMICAL ANALYSIS

C	MN	P	S	SI	CU	CR	NI
0.43	0.79	0.0090	0.019	0.28	0.02	1.0600	0.03
MO	AL						
0.18	0.015						

RCPT: R167824

### COUNTRY OF ORIGIN : GERMANY

### MECHANICAL PROPERTIES

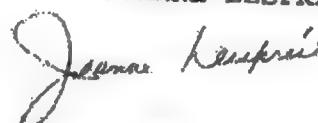
DESCRIPTION	YLD STR	ULT TEN	ELONG	RED IN AREA	HARDNESS BHN
					168

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcrrites du certificat d'essai du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ

# CERTIFICATE OF TEST CERTIFICAT D'ESAIIS

Page 02 of 02

Certification Date  
18-AUG-2017

CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT

43024-J

PART NUMBER/NUMÉRO DE PIÈCE

507340

Invoice Number  
T369355

SOLD TO: VENDU À:	METAUX SOLUTIONS INC.	SHIP TO: EXPÉDIÉ À:	METAUX SOLUTIONS (RIVE-SUD)
			2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1L7
			2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1

Description: 4140/4142 CF ANN BAR  
1 SQ X 12' R/L  
HEAT: SA894555  
END-QUENCH HARDENABILITY (JOMINY - RC) IN  
ITEM: 507340

1	2	3	4	5	6	7	8	9	10	12	14	16	18	22
58	57	56	56	55	55	53	52	51	50	47	45	43	42	40

ASTM A108  
Line Total: 84 LB

GRAIN SIZE :5 -

MATERIAL IS FREE FROM MERCURY CONTAMINATION  
NO WELD REPAIR PERFORMED ON MATERIAL

COMMENTS

\*ASTM A331 WITHDRAWN, REPLACED BY ASTM A108

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcris du certificat d'essai du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. Nous certifions que le matériel couvert par ce rapport sera conforme aux exigences spécifiques indiquées ci-haut. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

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Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ

# CERTIFICATE OF TEST CERTIFICAT D'ESAI

Page 01 of 02

CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT

Certification Date  
9-FEB-2018

44141-J

PART NUMBER/NUMÉRO DE PIÈCE

506424

Invoice Number  
S703350

SOLD TO: VENDU À:	METAUX SOLUTIONS INC. 2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1L7	SHIP TO: EXPÉDIÉ À:	METAUX SOLUTIONS (RIVE-SUD) 2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1
----------------------	--	------------------------	--

Description: 4140 4142 HR HT BAR STRESS FREE 269/321 BHN  
7/8 RD X 20" RL  
HEAT: 75065013 Line Total: 43.3752 LB

ITEM: 506424

Specifications:

ASTM A193 GR B7 16  
ASTM A29 15  
JDM AO QL-2  
ASTM A962 14

ASTM A434 GR BC 15  
ASTM A304 11  
ASTM A370 14

ASME SA193 GR B7  
ASTM A255 10  
ASTM A322 13

CHEMICAL ANALYSIS

C	MN	P	S	SI	NI	CR	MO
0.42	0.89	0.0090	0.029	0.25	0.19	0.91	0.17
CU	SN	AL	V	CA	NB	H	
0.19	0.0090	0.028	0.003	0.0012	0.001	2.50	

RCPT: R218782

COUNTRY OF ORIGIN : USA

MECHANICAL PROPERTIES

DESCRIPTION	YLD STR KSI	ULT TEN KSI	%ELONG IN 02 IN	%RED IN AREA	HARDNESS BHN
	136.0	147.0	22.0	60.0	295

GRAIN SIZE : 5 - 8

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcris du certificat d'essai du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ

# CERTIFICATE OF TEST CERTIFICAT D'ESAI

Page 02 of 02

CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT

44141-J

PART NUMBER/NUMÉRO DE PIÈCE

506424

Certification Date  
9-FEB-2018

Invoice Number  
S703350

SOLD TO: VENDU À:	METAUX SOLUTIONS INC. 2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1L7	SHIP TO: EXPÉDIÉ À:	METAUX SOLUTIONS (RIVE-SUD) 2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1
----------------------	--	------------------------	--

Description: 4140/4142 HR HT BAR STRESS FREE 269/321 BHN  
7/8 RD X 20' R/L Line Total: 43.3752 LB  
HEAT: 75065013 ITEM: 506424  
CLEANLINESS

	A		B		C		D	
	THIN MAX	THICK MAX	THIN MAX	THICK MAX	THIN MAX	THICK MAX	THIN MAX	THICK MAX
-----	-----	-----	-----	-----	-----	-----	-----	-----

8

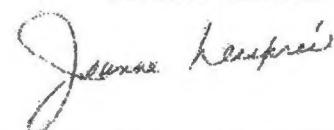
STRAND CAST REDUCTION RATIO 113.2 TO 1  
MATERIAL IS FREE FROM MERCURY CONTAMINATION  
NO WELD REPAIR PERFORMED ON MATERIAL  
THERMAL TREATMENT: OK  
AUSTENITIZE 1640 DEG F FOR 50  
QUENCH 88 DEG F DOR 20 WATER  
TEMPER 1410 DEG F FOR .50  
MACRO: OK  
MICRO1: OK

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcris du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ

# CERTIFICATE OF TEST

## CERTIFICAT D'ESAIIS

Page 01 of 02

Certification Date  
16-FEB-2018

CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT

44141-J

PART NUMBER/NUMÉRO DE PIÈCE

506450

SOLD TO:	METAUX SOLUTIONS INC.	SHIP TO:	METAUX SOLUTIONS (RIVE-SUD)
VENDU À:		EXPÉDIÉ À:	
	2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1L7		2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1

Description: 4140/4142 HOT ROLL HT BAR  
5/8 RD X 20 RL  
HEAT: 75066727  
ITEM: 506450

269/321 BHN A  
Line Total: 20.88 LB

Specifications:  
ASTM A193 GR B7 01      ASME SA193 GR B7      ASTM A434 CL BC 90A

### CHEMICAL ANALYSIS

C	MN	P	S	SI	NI	CR	MO
0.42	0.85	0.012	0.0180	0.23	0.13	1.01	0.16
AL	CU	V	CB				
0.0180	0.24	0.003	0.002				

RCPT: R259594

COUNTRY OF ORIGIN : USA

### MECHANICAL PROPERTIES

DESCRIPTION	YLD STR PSI	ULT TEN PSI	%ELONG IN 02 IN	%RED IN AREA	HARDNESS BHN
	127000.0	148000.0	20.4	72.0	273

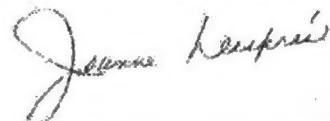
GRAIN SIZE : 5 - 8

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcris du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ

# CEBTIFICATE OF TEST CERTIFICAT D'ESAI

Page 02 of 02

Certification Date  
16-FEB-2018

CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT

44141-J

PART NUMBER/NUMÉRO DE PIÈCE

506450

Invoice Number  
T375959

SOLD TO:	METAUX SOLUTIONS INC.	SHIP TO:	METAUX SOLUTIONS (RIVE-SUD)
VENDU À:	EXPÉDIÉ À:		
	2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1L7		2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1

Description: 4140/4142 HOT ROLL HT BAR  
5/8 RD X 20' R/L  
HEAT: 75066727

ITEM: 506450

269/321 BHN A  
Line Total: 20.88 LB

MATERIAL IS FREE FROM MERCURY CONTAMINATION  
NO WELD REPAIR PERFORMED ON MATERIAL  
THERMAL TREATMENT: OK  
AUSTENIZE 1630F .60  
WATER QUENCH  
TEMPER 1395F .60  
MACRO: OK  
MICRO1: OK

---

## COMMENTS

ACCEPTED FOR 1E0509 PN 169-6969 MP PER BSH 7-21-17

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcris du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ